ATTACHMENT 29
DATA REQUEST NO. 134A

TANK INSERTION LOSS CALCULATIONS

RESPONSE TO DATA REQUESTS
MAY 4, 2001

Attachment 29
Tables 1-6 for Data Response 134a

Summary of Results: Storage Tank "Insertion Loss" Measurements and Analysis

Table 1: Measured Ambient Noise Levels at Nearest Residence (ST-18A/ST-18B) (dBA)

Location	L_{eq}	L_{90}	L_{50}
ST-18A	62	61	62
ST-18B	50	48	50

Table 2: Estimated Noise Levels (based upon ST-19, ST-20 and ST-21 measurements) from El Segundo Generating Station (ESGS) at Nearest Residence (ST-18A/ST-18B) without Storage Tanks [2,3] (dBA)

Location	L_{eq}	L_{90}	L_{50}
ST-18A	52	52	53
ST-18B	52	52	53

2 - These calculations were verified independently by propagating the noise data from ST-22 out to the ST-18A/ST-18B location. Agreement between the two data sets was good, varying 0.3 dB to 1.5 dB (ST-22-propogated data would be lower in all cases).
3 - Including the predicted noise level of 42.2 dBA from addition of Units 5, 6 and 7, and associated equipment. Does not subtract the noise from units 1 and 2, as a conservative measure.

Table 3: Net Difference[4] Between Measured Ambient Noise Levels and Estimated ESGS Noise Levels without Storage Tanks (dBA)

Location	L_{eq}	L_{90}	L_{50}
ST-18A	-10	-9	-9
ST-18B	2	4	3

4 - Negative values indicate that the measured ambient noise levels would exceed the noise levels from the plant. Positive values indicate that the plant noise levels would exceed the measured ambient noise levels.

Table 4: Ambient plus ESGS Noise Levels at Nearest Residence (ST-18A/ST-18B) without Storage Tanks (dBA)

Location	L_{eq}	L_{90}	L_{50}
ST-18A	63	61	63
ST-18B	54	53	54

Table 5: Noise Level increase from Project (Ambient plus ESGS Noise Levels - Measured Ambient Noise Levels) (dBA)

Location	L_{eq}	L_{90}	L_{50}
ST-18A	1	0	1
ST-18B	4	5	4

Table 6: Subjective Effect of Changes in Noise Levels

Change in Level (dBA)	Subjective Effect
3	Just Perceptible
5	Clearly Perceptible
10	Twice as Loud

Source: Hassall, J.R. and K. Zaveri. 1988. Acoustic Noise Measurements. Fifth Edition. Brüel and Kjær Instruments, Inc. Copenhagen, Denmark.